

Appl. No. : 09/605,612  
Applicant : Lucas, et al.  
Filed : June 28, 2000  
TC/A.U. : 2178  
Examiner : Huynh, Cong Lac T.

Confirmation No. 5855

Docket No. : 6169-142  
IBM Docket No. : BOC9-1999-0008

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**DECLARATION UNDER 37 C.F.R. § 1.131**

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22203-1450

Sir:

I, Bruce D. Lucas, a citizen of the United States of America, residing at 1285 Sunny Ridge Road, Mohegan Lake, NY 10547, hereby declare and state as follows:

1. I was employed by International Business Machines Corporation (IBM) of Boca Raton, Florida at the time the above-identified application was conceived and continue to be employed by IBM. I make this declaration in support the above-identified application.
2. IBM has invested substantial time and effort into the research, development, and marketing of their products, and in an effort to protect its rights in all new inventions, IBM requests that all employees prepare and submit IBM Confidential Invention Disclosure Forms upon conception by the inventor(s).
3. As a named inventor for this invention, my co-inventor and I submitted the attached IBM Confidential Invention Disclosure BOC8-1999-0113.
4. I make this Declaration to establish that my co-inventor and I conceived of the present invention at least as early as November 11, 1999, and exercised due diligence from prior to November 11, 1999 through June 28, 2000, the filing date for the above-identified patent application.

(WP16470E:1)

5. I further declare that all statements made herein of my own knowledge are true and all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both under Section 1001 of Title 18 of the United States Code, and that such willful, false statements may jeopardize the validity of the above-identified patent application or any patent issuing thereon.

Bruce D. Lucas  
Bruce D. Lucas

Date: 1 APR 04

STATE OF New York )  
COUNTY OF Westchester ) ss: Yorktown Heights

The foregoing instrument was sworn to and subscribed before me this 1 day of April, 2004, by BRUCE D. LUCAS, who is personally known to me or who has produced IBM Badge (type of identification) as identification.

Rosemarie M. Gratz  
NOTARY PUBLIC

Rosemarie M. Gratz

(Print, Type or Stamp Commissioned Name of Notary Public)

ROSEMARIE M. GRATZ  
NOTARY PUBLIC, State of New York  
No. 01GR4395297  
Qualified in Putnam & Westchester Counties  
Commission Expires July 5, 2006

MAR 31 '04 14:49 FR IBM BOCA

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**DECLARATION UNDER 37 C.F.R. § 1.131**

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22203-1450

Sir:

I, David E. Reich, a citizen of the United States of America, residing at 6884 Inland Court, Jupiter, FL 33458, hereby declare and state as follows:

6. I was employed by International Business Machines Corporation (IBM) of Boca Raton, Florida at the time the above-identified application was conceived and continue to be employed by IBM. I make this declaration in support the above-identified application.

7. IBM has invested substantial time and effort into the research, development, and marketing of their products, and in an effort to protect its rights in all new inventions, IBM requests that all employees prepare and submit IBM Confidential Invention Disclosure Forms upon conception by the inventor(s).

8. As a named inventor for this invention, my co-inventor and I submitted the attached IBM Confidential Invention Disclosure BOC8-1999-0113.

9. I make this Declaration to establish that my co-inventor and I conceived of the present invention at least as early as November 11, 1999, and exercised due diligence from prior to November 11, 1999 through June 28, 2000, the filing date for the above-identified patent application.

(WP164708;1)

MAR 31 '04 14:49 FR IBM EDCR

10. I further declare that all statements made herein of my own knowledge are true and all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both under Section 1001 of Title 18 of the United States Code, and that such willful, false statements may jeopardize the validity of the above-identified patent application or any patent issuing thereon.

  
David E. ReichDate: 3-31-2004

STATE OF FLORIDA )

COUNTY OF PALM BEACH ) ss:



The foregoing instrument was sworn to and subscribed before me this 31<sup>st</sup> day of MARCH, 2004, by DAVID E. REICH, who is personally known to me or who has produced License (type of identification) as identification.

  
NOTARY PUBLIC,  
STATE OF FLORIDABETTE SIKES  
(Print, Type or Stamp Commissioned Name of Notary Public)County of Palm Beach

(WP164708;7)

**Disclosure BOC8-1999-0113**

Created By: David Reich Created On: 11/11/99 03:05:09 PM  
 Last Modified By: David Reich Last Modified On: 11/11/99 03:40:36 PM

\*\*\* IBM Confidential \*\*\*

Required fields are marked with the asterisk (\*) and must be filled in to complete the form.

**Summary**

Status	Under Evaluation
Processing Location	BOC
Functional Area	Speech Development & Customization (O. Osborne)
Attorney/Patent Professional	Richard Tomlin/Boca Raton/IBM
IDT Team	Leo Leontiadis/West Palm Beach/IBM
Submitted Date	11/11/99 03:24:02 PM
Owning Division	SWG
PVT Score	To calculate a PVT score, use the 'Calculate PVT' button.
Lab	
Technology Code	
Incentive Program	

**Inventors with Lotus Notes IDs**

Inventors: Bruce Lucas/Watson/IBM, David Reich/West Palm Beach/IBM

Inventor Name > denotes primary contact	Inventor Serial	Div/Dept	Manager Serial	Manager Name
Lucas, Bruce D.	156125	76X11A	432921	De Gennaro, Steven V.
Reich, David E.	374664	76S25A	118109	Aldous, Anne M.

**Inventors without Lotus Notes IDs****IDT Selection**

IDT Team	Attorney/Patent Professional
Leo Leontiadis/West Palm Beach/IBM	Richard Tomlin/Boca Raton/IBM

**Response Due to IP&L : 12/11/99****Main Idea**

**Title of disclosure (in English)**  
 Method and apparatus for synchronized voice and visual user interface access to Internet web-based information

**Idea of disclosure**

1. Describe your invention, stating the problem solved (if appropriate), and indicating the advantages of using the invention.  
 The invention, which we have been calling "cobrowsing" is a way to synchronize voice and visual access to web data. The idea of the web for HTML is that a browser requests markup from a web server. The server returns either static or dynamically generated markup (HTML) which is rendered by the browser. For voice, one could use a voice markup language (such as VoiceXML), but it requires a separate browser. The problem is how to create a multimodal aspect whereby the visual and voice browsing can

Method and apparatus for synchronized voice and visual user interface access to Internet web-based information - continued

be synchronized without writing a new, separate hybrid browser, and without having to write new function directly into existing voice or visual browsers. After all, modifying Netscape or IE is not a realistic alternative.

The solution is cobrowsing. By writing the voice browser as a Java applet, (and using some scripting along with it) to be run in the Java "sandbox" under the visual browser, and using existing markup tags, one can effectively synchronize the voice and visual presentation. (For example, where a user would say "How do I get from San Francisco to Los Angeles?" and the browser tells him and shows it on a map as well, and clicking on say, a highway would enlarge the map and activate some voice output about the highway, selected route etc).

The essence is to have "co-target" type tags that are designed for the "other" browser in the cobrowsing pair. When a markup has a target (such as an "href" in HTML, a cotarget is specified in the tag as well. This causes some script to be executed that passes the data to (or from) the applet that causes the other to go visit the co-target. So when the user clicks on the map, the co-target tells the voice component to visit a different URL that has the voice content, and conversely, when the user asks to be shown say, San Luis Obispo, the co-target in the voice markup tells the visual browser to visit the appropriate URL.

2. How does the invention solve the problem or achieve an advantage, (a description of "the invention", including figures inline as appropriate)?

It solves the problem by using existing tags, in existing markup languages, with an innovative use of scripting and applets to make cooperating applications (actually, it can be viewed as one application since they are cooperating now) without reprogramming of either of the applications, making it cost effective and practical.

3. If the same advantage or problem has been identified by others (inside/outside IBM), how have those others solved it and does your solution differ and why is it better?

The only other solution currently proposed is proposed by Microsoft, and their solution is to build speech into their browser and add a set of new speech tags to HTML. This is a proprietary solution and attempts to hijack the HTML specification, and the industry has vocally rejected this plan.

4. If the invention is implemented in a product or prototype, include technical details, purpose, disclosure details to others and the date of that implementation.

It is implemented in a prototype and has only been shown internally. The implementation was around April, 1999 and was written for Windows NT only. It essentially uses the voice browser and a visual browser, and uses JavaScript and the Java plug-in API to perform the actual information passing to perform the synchronization.

\*Critical Questions ( Questions 1 - 7 must be answered)

<p><b>*Question 1</b> On what date was the invention workable? 04/1999 Please format the date as MM/DD/YYYY (Workable means i.e. when you know that your design will solve the problem)</p>	
<p><b>*Question 2</b> Is there any planned or actual publication or disclosure of your invention to anyone outside IBM?</p>	
<p>If yes, Enter the name of each publication or patent and the date published below. Publication/Patent: Date Published or issued: This is planned for a product in the "E-Voice" project.</p>	
<p>Are you aware of any publications, products or patents that relate to this invention?</p>	
<p>If yes, Enter the name of each publication or patent and the date published below. Publication/Patent: Date Published or issued:</p>	

Method and apparatus for synchronized and visual user interface access to Internet web-based information - continued

<b>Question 3</b>	<input type="radio"/> Yes <input checked="" type="radio"/> No
Has the subject matter of the invention or a product incorporating the invention been sold, used internally in manufacturing, announced for sale, or included in a proposal?	
Is a sale, use in manufacturing, product announcement, or proposal planned?	<input checked="" type="radio"/> Yes <input type="radio"/> No
If Yes, identify the product if known and indicate the date or planned date of sale, announcements, or proposal and to whom the sale, announcement or proposal has been or will be made.	
Product: E-Voice (We do not have a name yet)	
Version/Release: 1	
Code Name: E-Voice	
Date: 2/12/2000	
To Whom: Customers	
If more than one, use cut and paste and append as necessary in the field provided.	

<b>Question 4</b>	<input type="radio"/> Yes <input checked="" type="radio"/> No
Was the subject matter of your invention or a product incorporating your invention used in public, e.g., outside IBM or in the presence of non-IBMers?	
If yes, give a date. Please format the date as MM/DD/YYYY.	

<b>Question 5</b>	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you ever discussed your invention with others not employed at IBM?	
If yes, identify individuals and date discussed. Fill in the text area with the following information, the names of the individuals, the employer, date discussed, under CDA, and CDA #.	

<b>Question 6</b>	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Not sure
Was the invention, in any way, started or developed under a government contract or project?	
If Yes, enter the contract number.	

<b>Question 7</b>	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Not Sure
Was the invention made in the course of any alliance, joint development or other contract activities?	
If Yes, enter the following: Name of Alliance, Contractor or Joint Developer	
Contract ID number	
Relationship contact name	
Relationship contact E-mail	
Relationship contact phone	

<b>Question 8</b>	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you submitted, or are you aware of, any related disclosure submission?	
If Yes, please provide the title and docket or disclosure number below:	

Method and apparatus for synchronized voice and visual user interface access to Internet web-based information - continued

**Question 3**  
What type of companies do you expect to compete with inventions of this type? Check all that apply.

<input type="checkbox"/>	Manufacturers of enterprise servers
<input type="checkbox"/>	Manufacturers of entry servers
<input type="checkbox"/>	Manufacturers of workstations
<input type="checkbox"/>	Manufacturers of PCs
<input type="checkbox"/>	Non-computer manufacturers
<input checked="" type="checkbox"/>	Developers of operating systems
<input checked="" type="checkbox"/>	Developers of networking software
<input checked="" type="checkbox"/>	Developers of application software
<input checked="" type="checkbox"/>	Integrated solution providers
<input checked="" type="checkbox"/>	Service providers
<input type="checkbox"/>	Other (Please specify below)

**Patent Value Tool (Optional - this may be used by the inventor and attorney to assist with the evaluation of the invention)**  
**Post Disclosure Text & Drawings**

(Form Revised 12/17/97)